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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,153	07/29/2003	James Robert Allen		5978

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MICHAEL TAVELLA  
2051 BRIGADIER DRIVE  
ANCHORAGE, AK 99507

EXAMINER

THOMSON, MICHELLE R

ART UNIT PAPER NUMBER

3641

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/629,153

Applicant(s)

ALLEN ET AL.

Examiner

Michelle (Shelley) Thomson

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 5-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Invention I, claims 1-4 in the reply filed on 7/21/04 is acknowledged.
2. Claims 5-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 7/21/04.

### ***Information Disclosure Statement***

3. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### ***Drawings***

4. The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81. No new matter may be introduced in the required drawing.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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6. Claims 1-4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It is not clear to the examiner what quantities and percentages of the disclosed compositions yield the claimed shot pellet comprising the claimed properties. The density, hardness and lubricity of the pellet are dependent upon the percentages of each component present in the final composition, yet applicant has not disclosed any amounts that would yield the claimed percentage. Undue experimentation would be required by one of ordinary skill in the art to determine the required percentages to yield the claimed composite having a surface hardness **equal** to that of lead, a lubricity **equal** to that of lead and a density **equal** to lead. The hardness and lubricity of bismuth/tin powder are dependant on the quantities present, although applicant has claimed the hardness and lubricity **equal** to that of lead, applicant's examples disclose having achieved only "an **approximate** hardness equivalent to that of lead" (pages 12 and 13). It is not clear to the examiner how applicant is able to have a hardness equal to that of lead, since both tin and bismuth are harder than lead. It is not clear to the examiner how one measures the lubricity of the elements to determine whether they are equal to lead and applicant has not disclosed anything concerning the lubricity besides stating that it is a desired quality. It is not clear to the examiner where the layer of nickel is located and how it affects the claimed properties. If it is formed as an outer surface, does it have a hardness and lubricity equal to that of lead? Does the pellet have a density equal to that of lead when the layer of nickel is included?

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. The language "the lubricity equal to that of lead" in claim 1 is indefinite. The term language is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Since lubricity is not a property that can be objectively measured, one of ordinary skill in the art would not be able to determine what elements have a lubricity **equal** to that of lead, or what the **exact** lubricity of lead is.

***Claim Rejections - 35 USC § 102 & § 103***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kreuzer (US Patent # 3,120,188). Kreuzer discloses a shot pellet comprising a multilayered annular metallic composite having an inner core, having a density and an outer shell (Figure 2), whereby said shot

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pellet has an outer surface having a hardness and a lubricity equal to that of lead and further whereby the shot pellet also has a density equal to lead (since it is lead then it must have these exact same properties equal to that of lead).

13. Claims 1-3 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Oltrogge (US Patent # 5,279,787). Oltrogge discloses a shot pellet comprising a multilayered annular metallic composite having an inner core, having a density and an outer shell, the inner core is formed of tungsten, the outer shell is formed of bismuth and tin; the shot pellet has a density equal to lead (Table I). Although Oltrogge does not expressly disclose the outer surface having a hardness and a lubricity equal to that of lead, it is inherent that it would have the same properties as applicant's disclosed pellet since Oltrogge discloses the same elements, structure and product as applicant.

14. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hooper et al. (US Patent # 4,881,465). Hooper et al. discloses a shot pellet comprising a multilayered annular metallic composite having an inner core, an outer shell, and a layer of nickel formed over the inner core (column 4, lines 25-35). The pellet having a density equal to lead (column 3, lines 45-55). Although Hooper et al. does not expressly disclose the outer surface having a hardness and a lubricity equal to that of lead, it is inherent that the outer surface would have a hardness and a lubricity approximately equal to that of lead (similar to that as disclosed by applicant), since the hardness of the individual elements are approximately equal to that of lead.

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***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Satow (US Patent # 5, 597,975), Lowden et al. (US Patent # 5,760,331), Amick (US Patent # 6,209,180), and Huffman et al. (US Patent # 5,189,252).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle (Shelley) Thomson whose telephone number is 703.306.4176. The examiner can normally be reached on Monday thru Thursday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 703.306.4198. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mrt

*M. Thomson*